CONSERVATION Showcase

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Hancock County Farmer: Additional N Doesn't Pay

Common sense conservation is paying dividends for farmer Dean Stromer of Klemme, Iowa. Results of required soils tests through his Environmental Quality Incentives Program (EQIP) contract and a little experimentation have Stromer convinced that additional nitrogen doesn't necessarily pay off. He's saved money on fertilizer this year by applying less nitrogen than in past years.

Farmer Dean Stromer conducted an experiment on his corn crop and found that adding more than the necessary amount of nitrogen doesn't necessarily pay off.

Through EQIP, Stomer receives incentive payments to apply new nutrient and pest management practices to his cropland. Stromer signed EQIP contracts on three plots of land in 2006, totaling 320 acres. He owns some of the land, and rents some.

Producer Dean Stromer shows his farm pond to Hancock County District Conservationist Jason Moore. Stromer is the fourth generation to run the family farm; his father built the pond in the early 1960s because it was unsuitable for farming.

EQIP is a voluntary conservation program of the USDA Natural Resources Conservation Service (NRCS) that promotes agricultural production and environmental quality. Along with incentive payments to apply additional nutrient and pest management practices, EQIP offers ag producers financial and technical assistance to install or implement structural and management practices on eligible agricultural land. Examples of these practices include: grassed waterways, terraces, manure management structures, pasture management and tree plantings.

Nutrient Management

Stromer, a Hancock County Soil and Water Conservation District (SWCD) commissioner, says Hancock County District Conservationist Jason Moore with NRCS got him excited about EQIP. "Jason let me know there were funds available to help me improve my nutrient management, so we did the paperwork," he said. "It's been a gift."

In addition to implementing his nutrient management plan, Stromer agrees to apply the following activities:

- perform a fall stalk test to assess nitrogen utilization
- sidedress nitrogen

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- complete a late spring nitrogen test (LSNT)
- apply commercial nitrogen in the spring only
- conduct a grid or soil management zone analysis

Stromer hired a local technical service provider (TSP) to write the nutrient management plan, including the collection of soil tests. TSPs are individuals, private businesses, non-profit organizations and public agencies outside the USDA that help ag producers apply conservation practices on the land. To learn more about TSPs or to find a TSP, visit www.ia.nrcs.usda.gov/technical/TSP.html.

"The TSP who worked with Dean does a really good job," said Moore. "He doesn't just write the management plan, he stays with the producers to implement the plan."

Stromer said he learned from the soil tests what he suspected–he was applying way too much nitrogen. "I haven't applied one ounce of nitrogen until the first of June the last three years," he said, "but despite what soil test results showed, I still felt I needed to apply more."

Stromer performed a test experiment on a 40-acre plot of corn to find the correlation between yield production and nitrogen application rates. He applied strips of nitrogen at a rate of 75 pounds and 150 pounds across the field. "There wasn't five to eight bushel per acre better yield for that extra nitrogen," he said. "The thing we've learned through testing is that we were putting way too much on, and the additional N doesn't always pay."

Pest Management

For his pest management plan, Stromer works with a local agronomist to perform crop scouting before applying any herbicides or pesticides. They scout for insect problems, and only apply pesticides when insect populations are forecast to reach the economic threshold, the point at which the value of a crop loss exceeds the cost of the pest control.

Stromer takes a look at his switchgrass filter strip. The filter strip filters out pesticides, insecticides, herbicides, fertilizers and sediment from running off into a nearby stream.

Moore said the NRCS Windows Pesticide Screening Tool is used to identify the impact chemicals have on humans and fish. If the report shows that a chemical has a high probability of having a negative affect on humans or fish, the agronomist can change the chemicals or plan to address the concerns. If the potential is high for a chemical to runoff or leach, a mitigation technique is adopted. Depending on the potential loss due to leaching or runoff, practices that could risk to the environment include filter strips, contour buffer strips, residue management or spot spraying.

Certain types of soils, particularly sandy soils that allow water to move through and enter groundwater quickly, are also addressed. In these areas, spraying amounts are adjusted, or no spraying takes place at all.

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Common Sense Conservationist

As a SWCD commissioner, Stomer has always tried to be a common sense conservationist, and he expects other producers to do the same. “Don’t apply nitrogen to areas that pond in the spring, and keep it out of places that leach,” he said.

He believes small farmers, in particular, should be rewarded for their conservation work. “The guys who conduct the spring nitrogen tests and puts on only as much fertilizer that is needed by the crop, install and manage filter strips, and do wetland restoration where crops won’t grow anyway–their names should be in the paper and they should get the big dollars from the government,” said Stromer. “The taxpayer is getting something back from what those farmers are doing.”

For more information about EQIP, visit the Iowa NRCS website at www.ia.nrcs.usda.gov/programs/stateeqip.html.

By Jason Johnson, Public Affairs Specialist
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